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SONY AZ1-L SERVICE MANUAL

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HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

AZ1-L *Chassis*

ORIGINAL MANUAL ISSUE DATE: 1/2010

Version	Date	Subject
1.0	1/25/2010	No revisions or updates
2.0	1/29/2010	Corrected part information for Lens. Replaced pages i, 16-18.
3.0	3/17/2010	Corrected Disassembly/Part Number Information section. Replaced pages 12-20. Corrected Service Adjustment Information. Reissue entire manual.

LCD Digital Color TV

SONY®

9-888-268-03

Self Diagnosis
Supported model

SERVICE MANUAL

AZ1-L *Chassis*

LCD Digital Color TV

SONY®

9-888-268-03

MODEL LIST

MODEL	COMMANDER	DESTINATION
KDL-32EX700	*RM-YD033*	*US*
KDL-32EX700	*RM-YD055*	*CND/MX*
KDL-40EX700	*RM-YD033*	*US*
KDL-40EX700	*RM-YD055*	*CND/MX*
KDL-40EX703	*RM-YD055*	*CND*
KDL-46EX700	*RM-YD033*	*US*
KDL-46EX700	*RM-YD055*	*CND/MX*
KDL-46EX701	*RM-YD033*	*US*
KDL-46EX701	*RM-YD055*	*CND*
KDL-46EX703	*RM-YD055*	*CND*

MODEL	COMMANDER	DESTINATION
KDL-52EX700	*RM-YD033*	*US*
KDL-52EX700	*RM-YD055*	*CND/MX*
KDL-52EX701	*RM-YD033*	*US*
KDL-52EX701	*RM-YD055*	*CND*
KDL-52EX703	*RM-YD055*	*CND*
KDL-60EX700	*RM-YD033*	*US*
KDL-60EX700	*RM-YD055*	*CND/MX*
KDL-60EX701	*RM-YD033*	*US*
KDL-60EX701	*RM-YD055*	*CND*
KDL-60EX703	*RM-YD055*	*CND*

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SPECIFICATIONS

Model name KDL-	60EX703 60EX701 60EX700	52EX703 52EX701 52EX700	46EX703 46EX701 46EX700	40EX703 40EX700	32EX700
System					
Television system	NTSC: American TV standard ATSC (8VSB terrestrial): ATSC compliant 8VSB QAM on cable: ANSI/SCTE 07 2000 (Does not include CableCARD functionality)				
Channel coverage	Analog terrestrial: 2 - 69 / Digital terrestrial: 2 - 69 Analog Cable: 1 - 135 / Digital Cable: 1 - 135				
Panel system	LCD (Liquid Crystal Display) Panel				
Speaker output	10 W + 10 W				
Input/Output jacks					
CABLE/ANTENNA	75-ohm external terminal for RF inputs				
VIDEO IN 1/2	VIDEO / AUDIO				
COMPONENT IN 1/2	YPBPR (Component Video) / Signal format: 480i, 480p, 720p, 1080i, 1080p / AUDIO				
HDMI IN 1/2/3/4	HDMI: Video: 480i, 480p, 720p, 1080i, 1080p, 1080/24p Audio: Two channel linear PCM 32, 44.1 and 48 kHz, 16, 20 and 24 bits, Dolby Digital AUDIO (HDMI IN 4)				
AUDIO OUT	500 mVrms (typical)				
DIGITAL AUDIO OUT (OPTICAL)	PCM/Dolby Digital optical signal				
PC IN	D-sub 15-pin, analog RGB				
PC/HDMI 4 AUDIO IN	Stereo mini jack				
LAN	10BASE-T/100BASE-TX connector (Connection speed may differ depending on the network environment. 10BASE-T/100BASE-TX communication rate and communication quality are not guaranteed for this TV.)*1				
USB/DLNA	Refer to the i-Manual for supported format.				

*1 For LAN connections, use a Category 7 10BASE-T/100BASE-TX cable (not supplied).

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Changes to certain features, settings, and functionalities of this TV (i.e. TV Guide, Picture/Sound, Light Sensor, Power Savings) can increase or change the power consumption.

Depending upon such changed settings, the power consumption may exceed the limits required for the ENERGY STAR qualification in the "Home" mode.

The 32 class has a 31.5 inch viewable image size (measured diagonally).

SPECIFICATIONS

Model name KDL-	60EX703 60EX701 60EX700	52EX703 52EX701 52EX700	46EX703 46EX701 46EX700	40EX703 40EX700	32EX700
Power and others					
Power requirement	110-240 V AC, 50/60 Hz (U.S.A./Canada 120 V AC, 60 Hz)				
Power consumption in use	208 W	142 W	125 W	107 W	91 W
in DAM*2	15 W (You may hear a clicking noise during the download but this is normal.)				
in standby	less than 0.17 W with 120 V AC and less than 0.23 W with 240 V AC			less than 0.13 W with 120 V AC and less than 0.2 W with 240 V AC	
Screen size (inches measured diagonally)	60 inches	52 inches	46 inches	40 inches	31.5 inches (32 class)
Display resolution	1,920 dots (horizontal) × 1,080 lines (vertical)				
Speaker Full range with speaker box (2) (mm) (inches)	34 × 160 1 3/8 × 6 3/8				
Dimensions with stand (mm)	1,431 × 909 × 386	1,252 × 805 × 350	1,118 × 730 × 280	985 × 655 × 280	811 × 539 × 250
(inches)	56 3/8 × 35 7/8 × 15 1/4	49 3/8 × 31 3/4 × 13 7/8	44 1/8 × 28 3/4 × 11 1/8	38 7/8 × 25 7/8 × 11 1/8	32 × 21 1/4 × 9 7/8
without stand (mm)	1,431 × 877 × 66	1,252 × 775 × 65	1,118 × 698 × 65	985 × 623 × 64	811 × 507 × 65
(inches)	56 3/8 × 34 5/8 × 2 5/8	49 3/8 × 30 5/8 × 2 5/8	44 1/8 × 27 1/2 × 2 5/8	38 7/8 × 24 5/8 × 2 5/8	32 × 20 × 2 5/8
wall-mount hole pattern (mm)	400 × 300	300 × 300			200 × 200
wall-mount screw size (mm)	M6 (length: refer to diagram on page 13.)				
Mass with stand (kg)/(lb.)	38.1/84.0	27.0/59.5	21.3/47.0	17.8/39.3	12.7/28.0
without stand (kg)/(lb.)	31.3/69.0	22.7/50.0	18.4/40.6	14.9/32.9	10.7/23.6
Supplied accessories	AC power cord (1) / Table-Top Stand (1) *1 (except KDL-60EX700/60EX701/60EX703 / models) / Stand Rear Cover (1) *2 / Fixing screws for Table-Top Stand (M5 × 16) (4) (except KDL-60EX700/60EX701/60EX703 models)/ Assembling Screws for Table-Top Stand (M5 × 16) (4) (for KDL-40EX700/40EX703/32EX700 models)/ Remote control (1) *3 / Size AAA batteries (2) / USB Wireless LAN Adapter UWA-BR100 (1) (for KDL-60EX701/52EX701/46EX701 models)				
Optional accessories	Connecting cables / Support Belt Kit / Wall-Mount Bracket				

*1 The 32" and 40" models require assembling. Refer to other leaflet to assemble the Table-Top Stand.
*2 The Stand Rear Cover is attached to the Table-Top Stand for 46, 52 and 60 inch models.
*3 Please refer to the model name printed on the remote control.

- Optional accessories availability depends on its stock.
- Design and specifications are subject to change without notice.

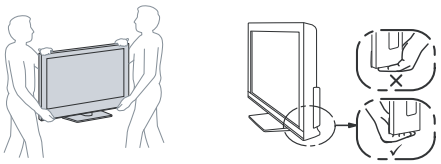
WARNINGS AND CAUTIONS

CAUTION

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

CARRYING THE TV

- Carry the TV with the adequate number of people; larger size TVs require two or more people.
- Correct hand placement while carrying the TV is very important for safety and to avoid damage.



WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.

⚠ SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ⚠ mark on the exploded views are critical for safe operation.
Replace all components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. It is essential that all critical parts be replaced only with the part number specified in this manual to prevent electric shock, fire, or other hazard.
Circuit adjustments that are critical for safe operation are identified in this manual.
Follow these procedures whenever critical components are replaced or improper operation is suspected.

NOTE: Do not modify the original design without obtaining written permission from the manufacturer or you will void the original parts and labor guarantee.

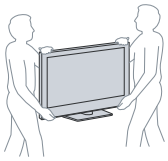
WARNING AND CAUTIONS

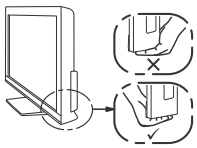
ATTENTION!!

Ces instructions de service sont à l'usage du personnel de service qualifié seulement. Pour prévenir le risque de choc électrique, ne pas faire l'entretien autre que celui contenu dans le Mode d'emploi à moins que vous soyez qualifié faire ainsi.

POUR TRANSPORTER LE TÉLÉVISEUR

- Transportez le téléviseur avec le nombre de personnes approprié ; un téléviseur de grande taille doit être transporté par au moins deux personnes.
- Lors du transport du téléviseur, l'emplacement des mains est très important pour votre sécurité, ainsi que pour éviter de causer des dommages.





ALERTE!!

Afin d'eviter tout risque d'electrocution provenant d'un châssis sous tension, un transformateur d'isolement doit etre utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

⚠ ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

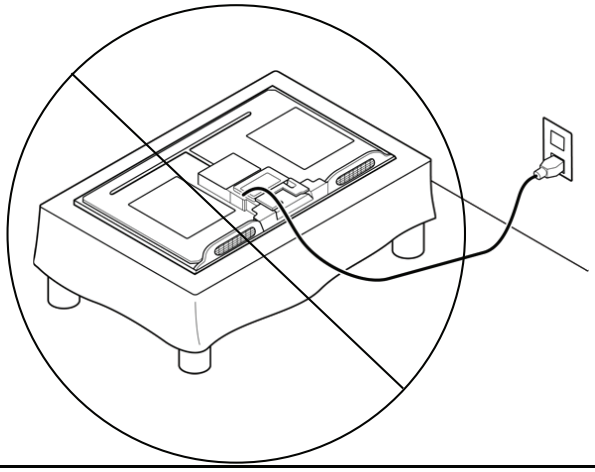
Les composants identifies par une trame et par une marque ⚠ sur les schemas de principe, les vues explosees et les listes de pieces sont d'une importance critique pour la securite du fonctionnement. Ne les remplacer que par des composants Sony dont le numero de piece est indique dans le present manuel ou dans des supplements publies par Sony. Les reglages de circuit dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. Suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

SAFETY-RELATED WARNING

USE CAUTION WHEN HANDLING THE LCD PANEL

When repairing the LCD panel, be sure you are grounded by using a wrist band.
When installing the LCD panel on a wall, the LCD panel must be secured using the 4 mounting holes on the rear cover.

1) Do not press on the panel or frame edge to avoid the risk of electric shock.
2) Do not scratch or press on the panel with any sharp objects.
3) Do not leave the module in high temperatures or in areas of high humidity for an extended period of time.
4) Do not expose the LCD panel to direct sunlight.
5) Avoid contact with water. It may cause a short circuit within the module.
6) Disconnect the AC power when replacing the inverter circuit.
   (High voltage occurs at the inverter circuit at 650Vrms.)
7) Always clean the LCD panel with a soft cloth material.
8) Use care when handling the wires or connectors of the inverter circuit. Damaging the wires may cause a short.
9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).
10) During the repair, DO NOT leave the Power On for more than 1 hour while the TV is face down on a cloth.



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

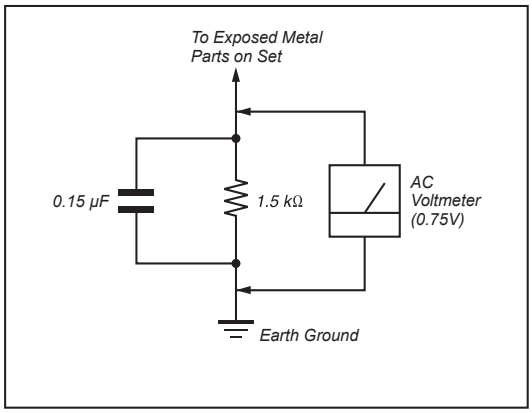


Figure A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA(500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale.

   The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground.

If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60-to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

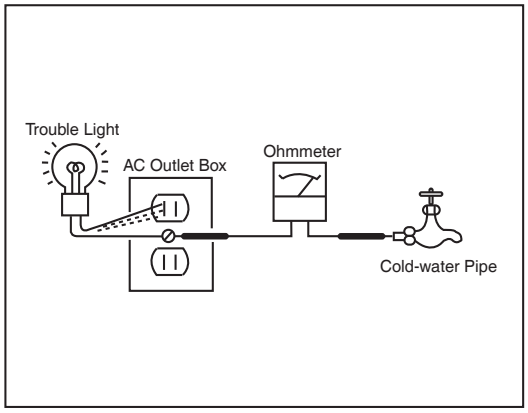


Figure B. Checking for earth ground.

SELF DIAGNOSIS FUNCTIONS

Self Diagnosis Supported model

SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

DIAGNOSTIC TEST INDICATORS

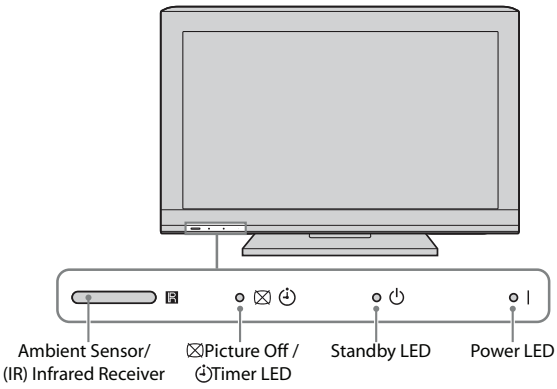
When an error occurs, the STANDBY LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.
Result for all of the following diagnostic items are displayed on screen.

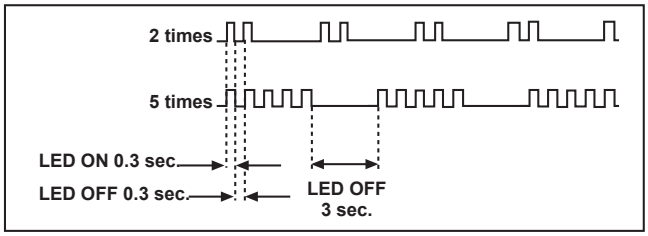
If the screen displays a "0", no error has occurred .

Diagnostic Item	Diagnostic Item Description	Number of times Standby LED blinks	Possible Location
RGB_SEN	RGB Sensor ACK Error	NA	NA
MAIN_POWER	Main Power Over Voltage Protection	2	GE3A (Power) BOARD (KDL-32EX700/40EX700/40EX703 Only) GE2B (Power) BOARD (KDL-46EX700/46EX701/46EX703/52EX700/52EX701/52EX703 Only) GE2A (Power) BOARD (KDL-60EX700/60EX701/60EX703 Only) BAL Board
DC_ALERT	DC Alert	3	BAL Board
DTT-WDT	DTT Error		GE3A (Power) BOARD (KDL-32EX700/40EX700/40EX703 Only) GE2B (Power) BOARD (KDL-46EX700/46EX701/46EX703/52EX700/52EX701/52EX703 Only) GE2A (Power) BOARD (KDL-60EX700/60EX701/60EX703 Only)
AUD_PROT	Audio Error Detection		
BALANCER	Panel Balancer Error	4	BAL Board
TCON ERR	TCON Error	5	BAL Board LCD Panel TCON Control MT Board
HFR ERR	HFR Error		
P_ID_ERR	Panel ID NVM Error		
BACKLITE	Backlight Error	6	BAL Board
TEMP_ERR	Temperature Error	7	BAL Board
FAN_ERR	Fan Error (Not Used in these models)		NA

SELF DIAGNOSIS FUNCTIONS

STANDBY LED FLASH COUNT





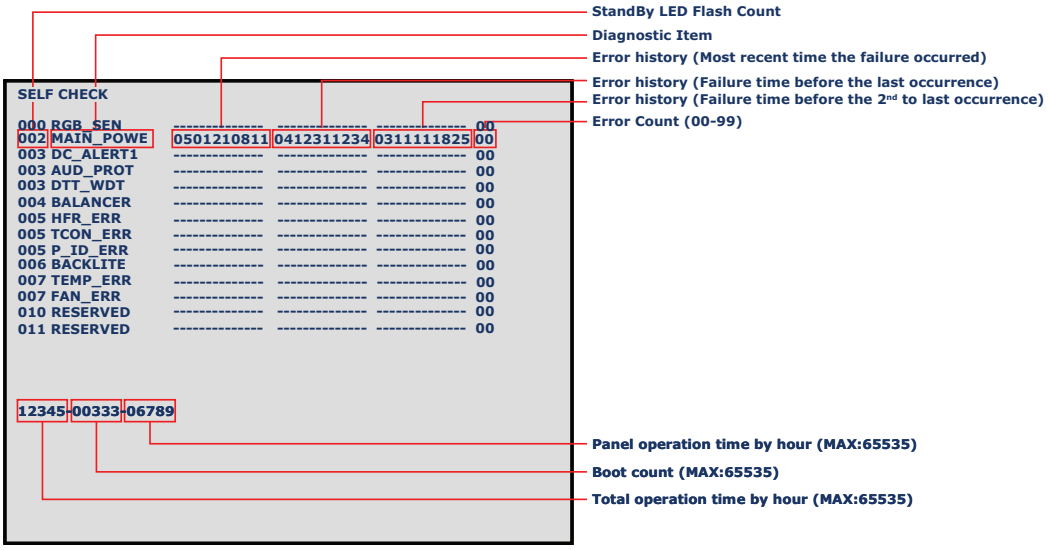
VIEWING THE SELF CHECK DIAGNOSTIC LIST

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of a failure for confirmation on the Self Check diagnostic screen:

1. TV must be in standby mode. (Power off).
2. Press the following buttons on the Remote Commander within a second of each other:

DISPLAY → Channel 5 → Volume - → POWER.

↑ * NOTE: This differs from accessing Service Adjustments Mode (Volume +)


StandBy LED Flash Count
Diagnostic Item
Error history (Most recent time the failure occurred)
Error history (Failure time before the last occurrence)
Error history (Failure time before the 2nd to last occurrence)
Error Count (00-99)
SELF CHECK
000 RGB_SEN ---------- ---------- ---------- 00
002 MAIN_POWE 0501210811 0412311234 0311111825 00
003 DC_ALERT1 ---------- ---------- ---------- 00
003 AUD_PROT ---------- ---------- ---------- 00
003 DTT_WDT ---------- ---------- ---------- 00
004 BALANCER ---------- ---------- ---------- 00
005 HFR_ERR ---------- ---------- ---------- 00
005 TCON_ERR ---------- ---------- ---------- 00
005 P_ID_ERR ---------- ---------- ---------- 00
006 BACKLITE ---------- ---------- ---------- 00
007 TEMP_ERR ---------- ---------- ---------- 00
007 FAN_ERR ---------- ---------- ---------- 00
010 RESERVED ---------- ---------- ---------- 00
011 RESERVED ---------- ---------- ---------- 00
12345 00333 06789
Panel operation time by hour (MAX:65535)
Boot count (MAX:65535)
Total operation time by hour (MAX:65535)

SELF DIAGNOSIS FUNCTIONS

CLEARING THE SELF CHECK DIAGNOSTIC LIST

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen after you have completed the repairs to be sure you have cleared the result display to “0”.

1. To clear the Error history and Error count: Press the Channel [8] ➡ Channel [0].
2. To clear the Panel operation time: Press the Channel [7] ➡ Channel [0].

EXITING THE SELF CHECK DIAGNOSTIC SCREEN

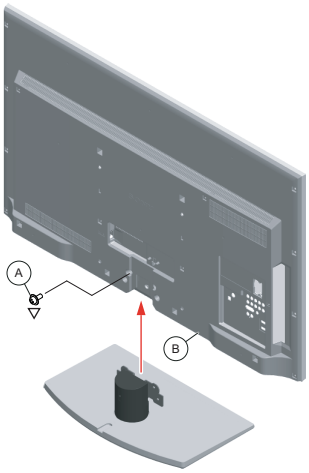
1. To exit the Self Diagnostic screen, turn off the power to the TV by pressing the POWER button on the remote or the POWER button on the TV.

SEC 1. DISASSEMBLY / PART NUMBER INFORMATION

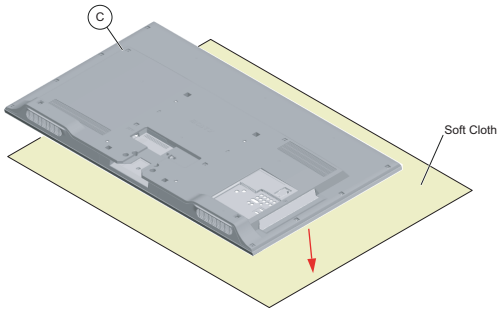
1-1. TABLE-TOP STAND ASSEMBLY REMOVAL

Ⓐ Remove 4 screws from Table-Top Stand Assembly

Ⓑ Lift up TV set to detach from Table-Top Stand Assembly



Ⓒ Gently place the TV set face down onto a soft cloth



Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

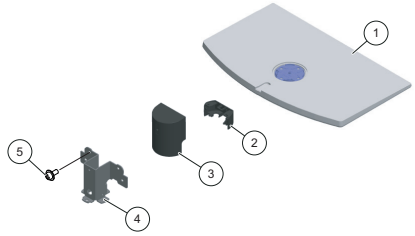
NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

▽	2-580-608-01	SCREW, +PSW M5X16



REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
1	X-2547-875-1	BASE (M3A) ASSY (KDL-32EX700 ONLY)
1	X-2547-876-1	BASE (ML3A) ASSY (KDL-40EX700/40EX703/46EX700/46EX701/46EX703 ONLY)
1	X-2547-877-1	BASE (LL3A) ASSY (KDL-52EX700/52EX701/52EX703 ONLY)
1	X-2546-099-1	BASE (LLL3A) ASSY (KDL-60EX700/60EX701/60EX703 ONLY)
2	4-170-477-01	COVER, NECK (M3A FRONT) (KDL-32EX700/40EX700/40EX703/46EX700/46EX701/46EX703 ONLY)
2	4-170-479-01	COVER, NECK (LL3A FRONT) (KDL-52EX700/52EX701/52EX703 ONLY)
2	4-170-476-01	COVER, NECK (LLL3A FRONT) (KDL-60EX700/60EX701/60EX703 ONLY)
3	4-170-485-01	COVER, NECK (M3A REAR) (KDL-32EX700/40EX700/40EX703/46EX700/46EX701/46EX703 ONLY)
3	4-170-487-01	COVER, NECK (LL3A REAR) (KDL-52EX700/52EX701/52EX703 ONLY)
3	4-170-488-01	COVER, NECK (LLL3A REAR) (KDL-60EX700/60EX701/60EX703 ONLY)
4	4-170-449-01	NECK (M3A) (KDL-32EX700 ONLY)
4	4-170-450-01	NECK (ML3A) (KDL-40EX700/40EX703/46EX700/46EX701/46EX703 ONLY)
4	4-170-451-01	NECK (LL3A) (KDL-52EX700/52EX701/52EX703 ONLY)
4	4-170-452-01	NECK (LLL3A) (KDL-60EX700/60EX701/60EX703 ONLY)
5	2-580-608-01	SCREW, +PSW M5X16 (SCREWS TO ATTACH TABLE-TOP STAND TO LCD TV) For product protection and safety reasons, Sony strongly recommends that you use the screws provided with the TV CAUTION: These screws cannot be used to secure the TV to the Wall Mount Brackets

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

1-2. REAR COVER, SWITCH UNIT, AND POWER SWITCH REMOVAL

Ⓐ Remove screws from Rear Cover to detach from Bezel

10 from KDL-32EX700/40EX700/40EX703/46EX700/46EX701/46EX703 Only
12 from KDL-52EX700/52EX701/52EX703/60EX700/60EX701/60EX703 Only

CAUTION: The Rear Covers on the models listed have sharp edges. Use caution when handling the Rear Cover to avoid injury. Areas marked with Yellow in Figure 1 have sharp edges.
The self-tapping screws used to secure the Rear Cover to the unit are shorter than those normally used on Sony televisions. Using a longer screw will cause a penetration of the front bezel assembly.

NOTE: SCREWS MARKED WITH ○ ARE SELF-TAP AND ARE SHORTER THAN THOSE NORMALLY USED IN SONY TELEVISIONS. USE OF INCORRECT SCREWS WILL CAUSE PENETRATION OF THE FRONT BEZEL.
AREAS MARKED WITH YELLOW LINE HAVE SHARP EDGES. USE CAUTION WHEN HANDLING.

Ⓑ Remove screws from Rear Cover to detach from Panel Bracket

2 from KDL-32EX700/40EX700/40EX703 Only
4 from KDL-46EX700/46EX701/46EX703/52EX700/ 52EX701/52EX703 Only
6 from KDL-60EX700/60EX701/60EX703 Only

Ⓒ Remove screws from Rear Cover to detach from Panel

3 from KDL-32EX700/40EX700/40EX703/ 46EX700/46EX701/46EX703 Only
4 from KDL-52EX700/52EX701/52EX703/ 60EX700/60EX701/60EX703 Only

Ⓓ Remove 4 screws from Rear Cover to detach from Vesa Bracket position

Ⓔ Remove 1 screw from Rear Cover to detach from Terminal position

Ⓕ Lift Hook Cover to detach from Under Cover

Ⓖ Remove 1 screw to detach AC Inlet from Bottom Frame (KDL-60EX700/60EX701/60EX703 Only)

Ⓗ Slide-out AC Inlet to remove from Under Cover (All Except KDL-60EX700/60EX701/60EX703)

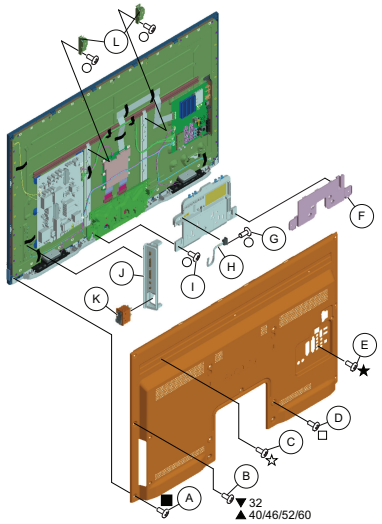
Ⓘ Remove screws from Under Cover to detach from Bottom Frame

2 from KDL-32EX700 Only
5 from KDL-40EX700/40EX703/ 46EX700/46EX701/46EX703/ 52EX700/52EX701/52EX703 Only
4 from KDL-60EX700/60EX701/60EX703 Only

Ⓙ Lift up Switch Unit and disconnect 1 connector to remove from Panel

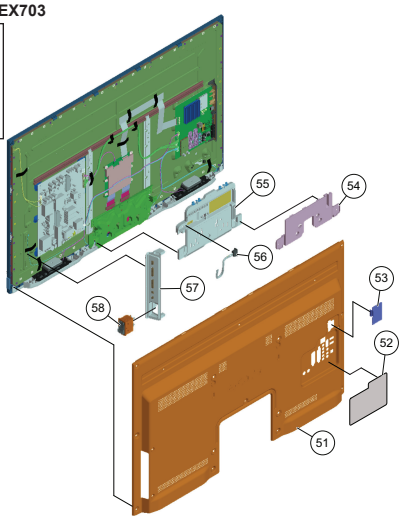
Ⓚ Slide out Power Switch and disconnect 1 connector to remove from Switch unit

Ⓛ Remove 2 screws to detach Vesa Brackets from Panel



1-2-1. KDL-32EX700 AND KDL-40EX700/40EX703

■	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3
□	2-580-611-01	SCREW, +PSW M6X16
▼	2-580-600-01	SCREW, +PSW M4X8
○	4-159-298-01	SCREW, +PSW M4X10
☆	2-580-591-01	SCREW, +PSW M3X5
★	7-685-646-79	SCREW, +BVTP 3X8 TYPE2 IT-3
▲	2-580-603-01	SCREW, +PSW M4X16



REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
51	X-2541-871-1	REAR COVER(32) ASSY (KDL-32EX700 ONLY)
51	X-2541-872-1	REAR COVER(40) ASSY (KDL-40EX700/40EX703 ONLY)
52	4-164-917-01	LABEL, REAR TERMINAL (US/CND MODELS ONLY)
52	4-164-917-11	LABEL, REAR TERMINAL (MX MODELS ONLY)
53	3-297-324-02	COVER, ECS
54	4-169-437-01	COVER, HOOK (32) (KDL-32EX700 ONLY)
54	4-171-125-01	COVER, HOOK (40/46) (KDL-40EX700/40EX703 ONLY)
55	4-169-434-01	COVER, UNDER (32) (KDL-32EX700 ONLY)
55	X-2547-768-1	COVER, UNDER (40/46/52) ASSY (KDL-40EX700/40EX703 ONLY)
⚠ 56	1-842-031-11	AC INLET (2P)
57	1-487-804-11	SWITCH UNIT
58	1-798-309-11	POWER SWITCH

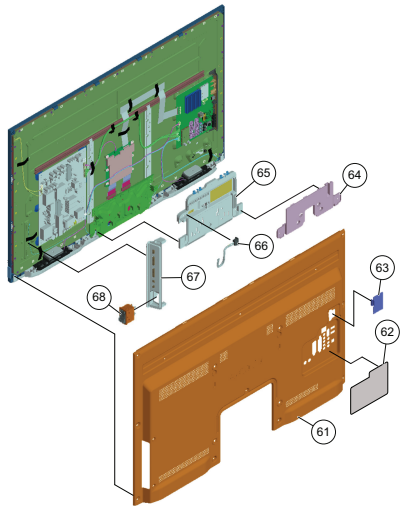
NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

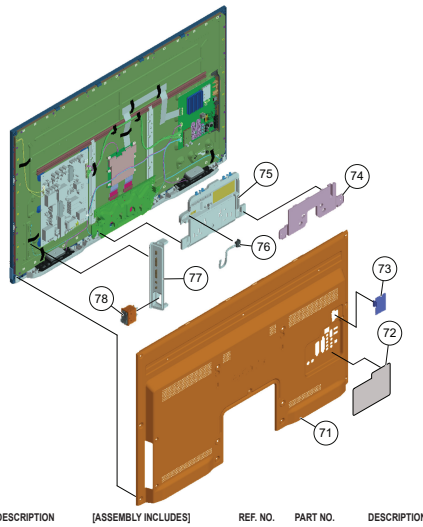
1-2-2. KDL-46EX700/46EX701/46EX703 AND KDL-52EX700/52EX701/52EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
61	X-2541-873-1	REAR COVER (46) ASSY	(KDL-46EX700/46EX701/46EX703 ONLY)
61	X-2541-874-1	REAR COVER(52) ASSY	(KDL-52EX700/52EX701/52EX703 ONLY)
62	4-164-917-01	LABEL, REAR TERMINAL	(US/CND MODELS ONLY)
62	4-164-917-11	LABEL, REAR TERMINAL	(MX MODELS ONLY)

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
63	3-297-324-02	COVER, ECS	
64	4-171-125-01	COVER, HOOK (40/46)	(KDL-46EX700/46EX701/46EX703 ONLY)
64	4-169-439-01	COVER, HOOK (52)	(KDL-52EX700/52EX701/52EX703 ONLY)
65	X-2547-768-1	COVER, UNDER (40/46/52) ASSY	
⚠ 66	1-842-031-11	AC INLET (2P)	
67	1-487-804-11	SWITCH UNIT	
68	1-798-309-11	POWER SWITCH	

1-2-3. KDL-60EX700/60EX701/60EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
71	X-2541-875-1	REAR COVER(60) ASSY	
72	4-164-917-01	LABEL, REAR TERMINAL	(US/CND MODELS ONLY)
72	4-164-917-11	LABEL, REAR TERMINAL	(MX MODELS ONLY)
73	3-297-324-02	COVER, ECS	
74	4-169-440-01	COVER, HOOK (60)	
75	4-169-436-01	COVER, UNDER (60)	

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
⚠ 76	1-842-104-31	AC INLET	
77	1-487-804-11	SWITCH UNIT	
78	1-798-309-11	POWER SWITCH	

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

1-3. SPEAKERS, HLR BOARD, AND LCD PANEL BRACKETS REMOVAL

Ⓐ Lift right-side Panel Bracket to detach from Panel
1 from KDL-32EX700/40EX700/40EX703 Only
2 from KDL-46EX700/46EX701/46EX703/52EX700/52EX701/52EX703 Only
3 from KDL-60EX700/60EX701/60EX703 ONLY

Ⓑ Remove 2 screws from Speaker Bracket Right (KDL-60EX700/60EX701/60EX703 Only)

Ⓒ Lift up Speaker Bracket Right to detach from Bezel

Ⓓ Remove screws from Speaker to detach from Speaker Bracket Right
4 from KDL-32EX700 Only
2 from all except KDL-32EX700

Ⓔ Remove 2 screws from Bottom Frame to detach from Bezel

Ⓕ Remove screws from Bottom Frame to detach from Panel
1 from all except KDL-60EX700/60EX701/60EX703
2 from KDL-60EX700/60EX701/60EX703 Only

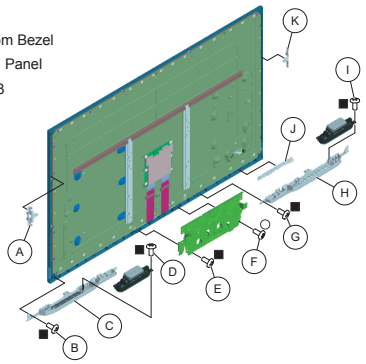
Ⓖ Remove 2 screws from Speaker Bracket Left (KDL-60EX700/60EX701/60EX703 Only)

Ⓗ Lift up Speaker Bracket Left to detach from Bezel

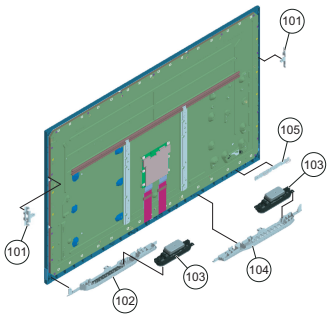
Ⓘ Remove screws from Speaker to detach from Speaker Bracket Left
4 from KDL-32EX700 Only
2 from all except KDL-32EX700

Ⓙ Disconnect 1 connector from HLR Board and release from LED Guide

Ⓚ Lift left-side Panel Bracket to detach from Panel
1 from KDL-32EX700/40EX700/40EX703 Only
2 from KDL-46EX700/46EX701/46EX703/52EX700/52EX701/52EX703 ONLY
3 from KDL-60EX700/60EX701/60EX703 Only



■ 2-580-639-01 SCREW, +BVTP 4X12 TYPE2 IT-3
○ 4-159-298-01 SCREW, +PSW M4X10



REF. NO.	PART NO.	DESCRIPTION [ASSEMBLY INCLUDES]
101	4-169-442-01	BRACKET, PANEL(B) (KDL- 32EX700 ONLY)
101	4-171-196-01	BRACKET, PANEL(A) (ALL EXCEPT KDL- 32EX700))
102	X-2547-771-1	BRACKET,SP(32R) ASSY (KDL- 32EX700 ONLY)
102	X-2547-775-1	BRACKET,SP(40R) ASSY (KDL- 40EX700/40EX703 ONLY)
102	X-2547-779-1	BRACKET,SP(46R) ASSY (KDL-46EX700/46EX701/46EX703 ONLY)
102	X-2547-785-1	BRACKET,SP(52R) ASSY (KDL-52EX700/52EX701/52EX703 ONLY)
102	X-2547-787-1	BRACKET,SP(60R) ASSY (KDL-60EX700/60EX701/60EX703 ONLY)
103	1-826-873-41	LOUDSPEAKER (3.4X17.5CM)
104	X-2547-773-1	BRACKET,SP(32L) ASSY (KDL- 32EX700 ONLY)
104	X-2547-777-1	BRACKET,SP(40L) ASSY (KDL- 40EX700/40EX703 ONLY)
104	X-2547-782-1	BRACKET,SP(46L) ASSY (KDL-46EX700/46EX701/46EX703 ONLY)
104	X-2547-786-1	BRACKET,SP(52L) ASSY (KDL-52EX700/52EX701/52EX703 ONLY)
104	X-2547-788-1	BRACKET,SP(60L) ASSY (KDL-60EX700/60EX701/60EX703 ONLY)
105	A-1744-405-A	HLR BOARD, MOUNTED

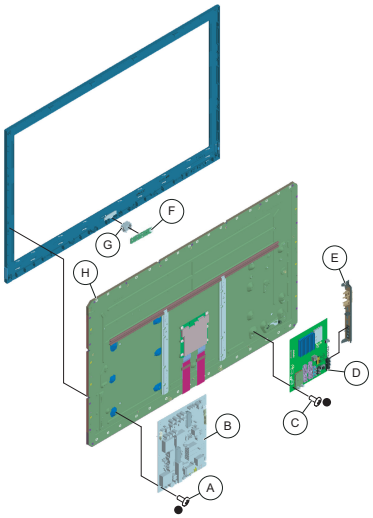
NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

1-4. GE3-A/GE2-A/GE2-B (POWER) BOARDS, BAL BOARD, HMS2 BOARD, AND LCD PANEL REMOVAL

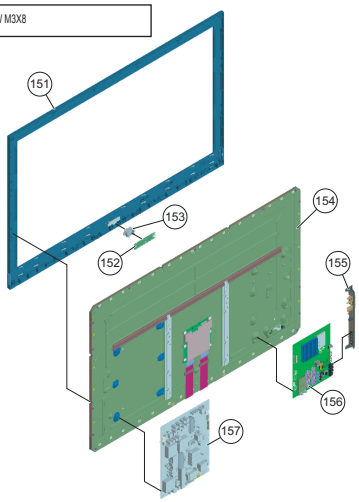
Ⓐ Remove screws from Power Boards
4 from GE3-A Board (KDL-32EX700/40EX700/40EX703 Only)
4 from GE2-B Board (KDL-46EX700/46EX701/46EX703/52EX700/52EX701/52EX703 Only)
5 from GE2-A Board (KDL-60EX700/60EX701/60EX703 Only)
Ⓑ Disconnect 5 connectors from Power Boards
Ⓒ Remove 4 screws from BAL Board
Ⓓ Disconnect 5 connectors from BAL Board
Ⓔ Slide Side Jack Bracket to right-side to remove from BAL Board
Ⓕ Lift HMS2 Board to detach from Bezel
Ⓖ Slide-out Lens to detach from Bezel
Ⓗ Carefully Lift up Panel to remove from Bezel



(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

1-4-1. KDL-32EX700/40EX700/40EX703

● 2-580-592-01 SCREW, +PSW M3X8



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
151	X-2541-866-1	BEZEL(32) ASSY	(KDL- 32EX700 ONLY)
151	X-2541-867-1	BEZEL(40) ASSY	(KDL- 40EX700 ONLY)
151	X-2547-169-1	BEZEL(40) ASSY	(KDL- 40EX703 ONLY)
152	A-1736-860-A	HMS2 BOARD, MOUNTED	
153	1-856-068-11	LENS	
154	N/A	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
155	4-171-117-01	BRACKET, SIDE JACK M	
🔒 156	A-1763-462-A	BAL BOARD, COMPLETE	
		NOTE: For BAL Board replacement, please refer to section 2-2. Setting the Destination after Replacing the BAL Board or LCD Panel. NOTE: Final software is not installed on this BAL Board. Install the update after replacing this board using the instructions provided with the software.	
157	1-474-213-11	GE3-A (POWER) BOARD, COMPLETE	

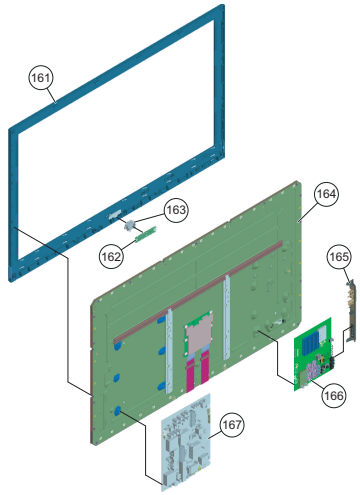
NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

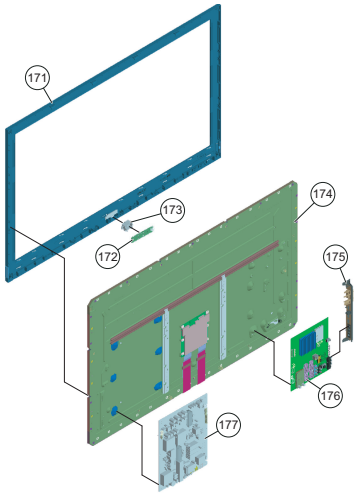
(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

1-4-2.KDL-46EX700/46EX701/46EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
161	X-2541-868-1	BEZEL(46) ASSY	
		(KDL-46EX700 ONLY)	
161	X-2548-036-1	BEZEL(46) ASSY	
		(KDL-46EX701 ONLY)	
161	X-2547-170-1	BEZEL(46) ASSY	
		(KDL-46EX703 ONLY)	
162	A-1736-860-A	HMS2 BOARD, MOUNTED	
163	1-856-068-11	LENS	
164	N/A	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
165	4-171-117-01	BRACKET, SIDE JACK M	
🔒 166	A-1763-462-A	BAL BOARD, COMPLETE	
		NOTE: For BAL Board replacement, please refer to section	
		2-2. Setting the Destination after Replacing the BAL Board or LCD Panel.	
		NOTE: Final software is not installed on this BAL Board. Install the update	
		after replacing this board using the instructions provided with the software.	
167	1-474-212-11	GE2-B (POWER) BOARD, COMPLETE	

1-4-3.KDL-52EX700/52EX701/52EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
171	X-2541-869-1	BEZEL(52) ASSY	
		(KDL-52EX700 ONLY)	
171	X-2547-166-1	BEZEL(52) ASSY	
		(KDL-52EX701 ONLY)	
171	X-2547-171-1	BEZEL(52) ASSY	
		(KDL-52EX703 ONLY)	
172	A-1736-860-A	HMS2 BOARD, MOUNTED	
173	1-856-068-11	LENS	
174	N/A	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
175	4-171-117-01	BRACKET, SIDE JACK M	
🔒 176	A-1763-462-A	BAL BOARD, COMPLETE	
		NOTE: For BAL Board replacement, please refer to section	
		2-2. Setting the Destination after Replacing the BAL Board or LCD Panel.	
		NOTE: Final software is not installed on this BAL Board. Install the update	
		after replacing this board using the instructions provided with the software.	
177	1-474-212-11	GE2-B (POWER) BOARD, COMPLETE	

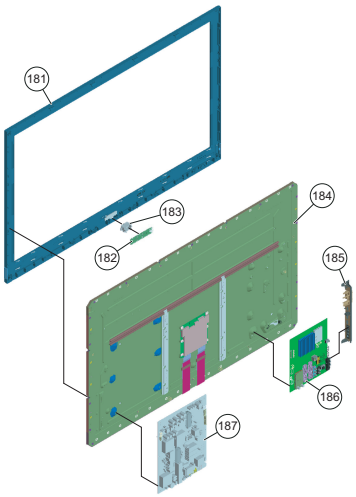
NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

1-4-4.KDL-60EX700/60EX701/60EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
181	X-2541-870-1	BEZEL(60) ASSY (KDL-60EX700 ONLY)	
181	X-2547-167-1	BEZEL(60) ASSY (KDL-60EX701 ONLY)	
181	X-2547-172-1	BEZEL(60) ASSY (KDL-60EX703 ONLY)	
182	A-1736-860-A	HMS2 BOARD, MOUNTED	
183	1-856-068-11	LENS	
184	N/A	LCD PANEL	
		FOR ALL LCD PANEL PART NUMBER INFORMATION	
		REFER TO THE LCD PANELS SERVICE MANUAL	
185	4-171-117-01	BRACKET, SIDE JACK M	
🔒 186	A-1763-462-A	BAL BOARD, COMPLETE	
		NOTE: For BAL Board replacement, please refer to section 2-2. Setting the Destination after Replacing the BAL Board or LCD Panel. NOTE: Final software is not installed on this BAL Board. Install the update after replacing this board using the instructions provided with the software.	
187	1-474-211-11	GE2-A (POWER) BOARD, COMPLETE	

1-5. CLEANING THE LCD PANEL

CAUTION: When cleaning the TV, be sure to unplug the power cord to avoid any chance of electric shock.

Clean the cabinet of the TV with a dry soft cloth.

Wipe the LCD screen gently with a soft cloth.

- Stubborn stains may be removed with a cloth slightly moistened with a solution of mild soap and warm water.
- If using a chemically pretreated cloth, please follow the instruction provided on the package.
- Never use strong solvents such as a thinner, alcohol or benzine for cleaning.
- Periodic vacuuming of the ventilation openings is recommended to ensure the proper ventilation.

1-6. SCREW LEGEND

1-6-1.KDL-32EX700

	P/N	DESCRIPTION	REMARKS	TOTAL
■	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	RC(10), BTM FRM to BEZ(2), SPKR to SPKR BRKT-L(4), SPKR to SPKR BRKT-R(4)	20
□	2-580-611-01	SCREW, +PSW M6X16	RC to VESA BRKT(4)	4
▼	2-580-600-01	SCREW, +PSW M4X8	RC to PNL to PNL BRKT(2)	2
▽	2-580-608-01	SCREW, +PSW M5X16	TABLE-TOP STAND(4)	4
●	2-580-592-01	SCREW, +PSW M3X8	BAL(4), GE3-A(4)	8
○	4-159-298-01	SCREW, +PSW M4X10	BTM FRM to PNL(2), VESA BRKT to PNL(2)	4
☆	2-580-591-01	SCREW, +PSW M3X5	RC to PNL(3)	3
★	7-685-646-79	SCREW, +BVTP 3X8 TYPE2 IT-3	RC to TRMNL AREA(1)	1
▲	2-580-603-01	SCREW, +PSW M4X16	NOT IN THIS MODEL	0

1-6-2.KDL-40EX700/40EX703

	P/N	DESCRIPTION	REMARKS	TOTAL
■	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	RC(10), BTM FRM to BEZ(2), SPKR to SPKR BRKT-L(2), SPKR to SPKR BRKT-R(2)	16
□	2-580-611-01	SCREW, +PSW M6X16	RC to VESA BRKT(4)	4
▼	2-580-600-01	SCREW, +PSW M4X8	NOT IN THIS MODEL	0
▽	2-580-608-01	SCREW, +PSW M5X16	TABLE-TOP STAND(4)	4
●	2-580-592-01	SCREW, +PSW M3X8	BAL(4), GE3-A(4)	8
○	4-159-298-01	SCREW, +PSW M4X10	BTM FRM to PNL(1), UC to BTM FRM(5), VESA BRKT to PNL(2)	8
☆	2-580-591-01	SCREW, +PSW M3X5	RC to PNL(3)	3
★	7-685-646-79	SCREW, +BVTP 3X8 TYPE2 IT-3	RC to TRMNL AREA(1)	1
▲	2-580-603-01	SCREW, +PSW M4X16	RC to PNL to PNL BRKT(2)	2

1-6-3.KDL-46EX700/46EX701/46EX703

	P/N	DESCRIPTION	REMARKS	TOTAL
■	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	RC(10), BTM FRM to BEZ(2), SPKR to SPKR BRKT-L(2), SPKR to SPKR BRKT-R(2)	16
□	2-580-611-01	SCREW, +PSW M6X16	RC to VESA BRKT(4)	4
▼	2-580-600-01	SCREW, +PSW M4X8	NOT IN THIS MODEL	0
▽	2-580-608-01	SCREW, +PSW M5X16	TABLE-TOP STAND(4)	4
●	2-580-592-01	SCREW, +PSW M3X8	BAL(4), GE2-B(4)	8
○	4-159-298-01	SCREW, +PSW M4X10	BTM FRM to PNL(1), UC to BTM FRM(5), VESA BRKT to PNL(2)	8
☆	2-580-591-01	SCREW, +PSW M3X5	RC to PNL(3)	3
★	7-685-646-79	SCREW, +BVTP 3X8 TYPE2 IT-3	RC to TRMNL AREA(1)	1
▲	2-580-603-01	SCREW, +PSW M4X16	RC to PNL to PNL BRKT(4)	4

1-6-4.KDL-52EX700/52EX701/52EX703

	P/N	DESCRIPTION	REMARKS	TOTAL
■	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	RC(12), BTM FRM to BEZ(2), SPKR to SPKR BRKT-L(2), SPKR to SPKR BRKT-R(2)	18
□	2-580-611-01	SCREW, +PSW M6X16	RC to VESA BRKT(4)	4
▼	2-580-600-01	SCREW, +PSW M4X8	NOT IN THIS MODEL	0
▽	2-580-608-01	SCREW, +PSW M5X16	TABLE-TOP STAND(4)	4
●	2-580-592-01	SCREW, +PSW M3X8	BAL(4), GE2-B(4)	8
○	4-159-298-01	SCREW, +PSW M4X10	BTM FRM to PNL(1), UC to BTM FRM(5), VESA BRKT to PNL(2)	8
☆	2-580-591-01	SCREW, +PSW M3X5	RC to PNL(4)	4
★	7-685-646-79	SCREW, +BVTP 3X8 TYPE2 IT-3	RC to TRMNL AREA(1)	1
▲	2-580-603-01	SCREW, +PSW M4X16	RC to PNL to PNL BRKT(4)	4

1-6-5.KDL-60EX700/60EX701/60EX703

	P/N	DESCRIPTION	REMARKS	TOTAL
■	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	RC(12), BTM FRM to BEZ(2), SPKR to SPKR BRKT-L(2), SPKR to SPKR BRKT-R(2), SPKR BRKT to BEZ(4)	22
□	2-580-611-01	SCREW, +PSW M6X16	RC to VESA BRKT(4)	4
▼	2-580-600-01	SCREW, +PSW M4X8	NOT IN THIS MODEL	0
▽	2-580-608-01	SCREW, +PSW M5X16	TABLE-TOP STAND(4)	4
●	2-580-592-01	SCREW, +PSW M3X8	BAL(4), GE2-A(5), AC INLET to BTM FRM(1)	10
○	4-159-298-01	SCREW, +PSW M4X10	BTM FRM to PNL(2), UC to BTM FRM(4), VESA BRKT to PNL(2)	8
☆	2-580-591-01	SCREW, +PSW M3X5	RC to PNL(4)	4
★	7-685-646-79	SCREW, +BVTP 3X8 TYPE2 IT-3	RC to TRMNL AREA(1)	1
▲	2-580-603-01	SCREW, +PSW M4X16	RC to PNL to PNL BRKT(6)	6

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

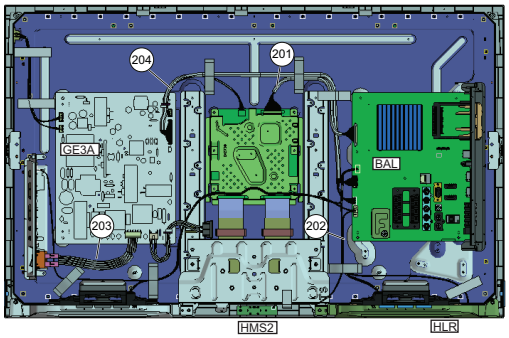
NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

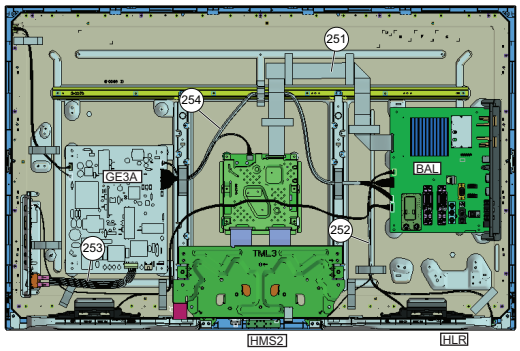
1-7. CONNECTORS

1-7-1.KDL-32EX700



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
201	1-837-790-11	(LVDS) LEAD WIRE WITH CONNECTOR	
202	1-910-100-16	HARNESS ASSY (1)	
203	1-837-663-12	CONNECTOR ASSY	
204	1-910-100-17	HARNESS ASSY (2)	

1-7-2.KDL-40EX700/40EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
251	1-837-704-11	(LVDS) FLEXIBLE FLAT CABLE 51P	
252	1-910-100-18	HARNESS ASSY (1)	
253	1-837-665-12	CONNECTOR ASSY	
254	1-910-100-19	HARNESS ASSY (2)	

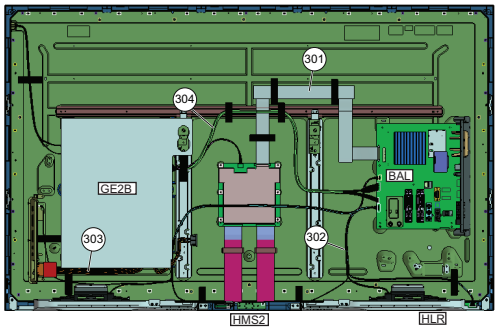
NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

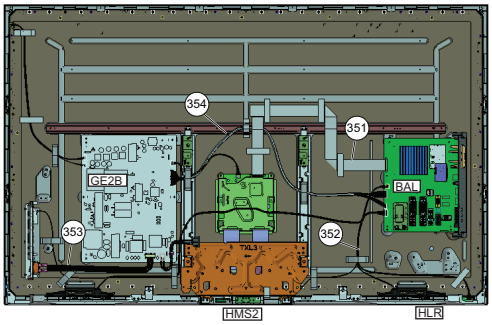
NOTE: The components identified by a red outline and a 🔒 mark contain confidential information. Specific instructions must be adhered to whenever these components are repaired and/or replaced.
See Appendix A: Encryption Key Components in the back of this manual.

(Check the Sony Electronics Service Information website for any additional service related issues for this model.)

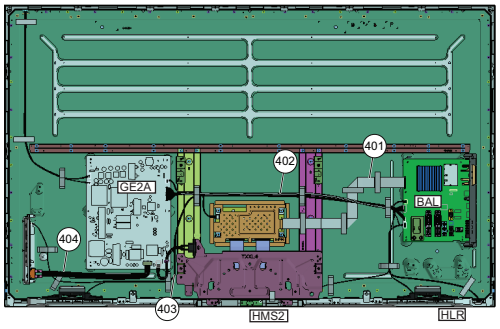
1-7-3.KDL-46EX700/46EX701/46EX703



1-7-4.KDL-52EX700/52EX701/52EX703



1-7-5.KDL-60EX700/60EX701/60EX703



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
301	1-837-705-11	(LVDS) FLEXIBLE FLAT CABLE 51P	
302	1-910-100-20	HARNESS ASSY (1)	
303	1-837-666-12	CONNECTOR ASSY	
304	1-910-100-21	HARNESS ASSY (2)	

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
351	1-837-706-11	(LVDS) FLEXIBLE FLAT CABLE 51P	
352	1-910-100-22	HARNESS ASSY (1)	
353	1-837-667-12	CONNECTOR ASSY	
354	1-910-100-23	HARNESS ASSY (2)	

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
* 401	1-837-710-11	(LVDS) FLEXIBLE FLAT CABLE 51P	
* 402	1-910-100-24	HARNESS ASSY (1)	
* 403	1-910-100-25	HARNESS ASSY (2)	
* 404	1-837-532-12	CONNECTOR ASSY	

1-8. ACCESSORIES AND PACKAGING

	3-299-071-03	FLYER, SAFETY
	4-178-827-12	MANUAL, INSTRUCTION (ENGLISH VERSION)
	4-178-827-22	MANUAL, INSTRUCTION (FRENCH VERSION)
	4-178-827-32	MANUAL, INSTRUCTION (SPANISH VERSION) (KDL- 32EX700/40EX700/46EX700/52EX700/60EX700 ONLY)
	4-171-791-12	MANUAL, INSTRUCTION (ENGLISH VERSION) (KDL-46EX701/52EX701/60EX701 ONLY)
⚠	1-837-633-11	POWER-SUPPLY CORD (KDL-60EX700/60EX701/60EX703 ONLY)
⚠	1-837-644-11	POWER-SUPPLY CORD SET (KDL-32EX700/40EX700/40EX703/46EX700/46EX701/46EX703/52EX700/52EX701/52EX703 ONLY)
*	4-180-033-11	SUPPLEMENT(STAND INSTALLATION)
	1-837-549-12	UWA-BR100 EXTENTION CABLE (KDL-46EX701/52EX701/60EX701 ONLY)
	1-487-779-11	UWA-BR100U UNIT (KDL-46EX701/52EX701/60EX701 ONLY)

1-9. MISCELLANEOUS

4-182-211-01	GASKET
X-2348-140-3	SUPPORT BELT KIT
4-182-212-01	SPACER (ALL EXCEPT KDL-32EX700)
4-186-417-01	SPACER, PANEL (KDL-40EX700/40EX703/46EX700/46EX701/46EX703 ONLY)
7-632-452-24	TAPE (NO.303) 18MMX35M YEL
4-187-297-01	WASHER (LCD)

1-10. REMOTE COMMANDER

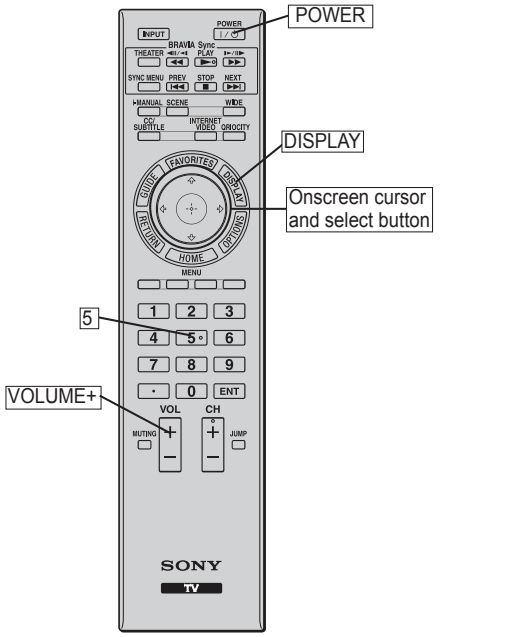
1-487-767-11	REMOTE COMMANDER (RM-YD033) (US MODELS ONLY)
1-487-832-11	REMOTE COMMANDER (RM-YD055) (ALL EXCEPT US MODELS)

SEC 2. SERVICE ADJUSTMENTS

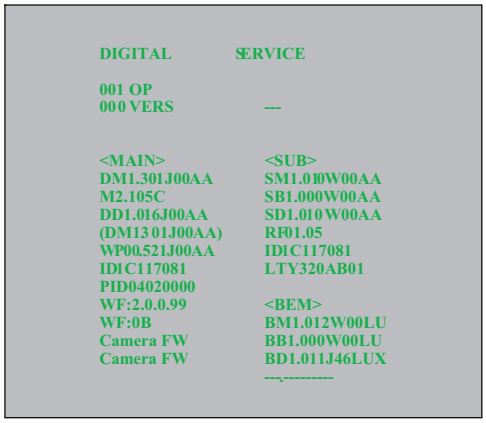
2-1. ACCESSING SERVICE ADJUSTMENT MODE

1. TV must be in Standby Mode. (POWER off).
2. Press the following buttons on the Remote Commander within a second of each other:

DISPLAY ➡ Channel 5 ➡ Volume + ➡ POWER



RM-YD033

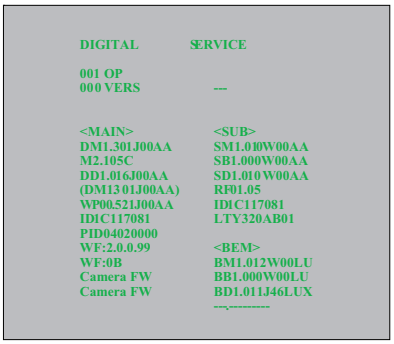


Sample Service Menu

2-1-1. VIEWING THE SERVICE MENUS

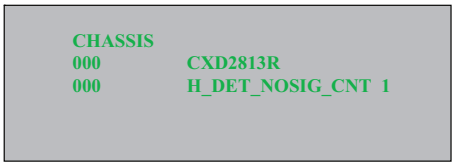
Use the Remote Commander to view the **Digital**, **Chassis** and **Sub** Service Menus and their options.

3. To display the **Service Menu** that contains the Category you want to adjust, press JUMP or OPTIONS on the Remote Commander.

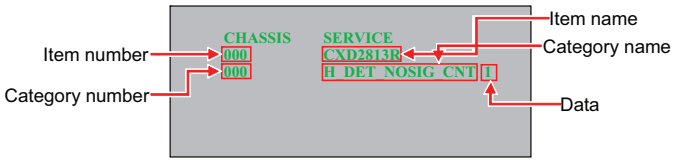


Sample Digital Service Menu

press JUMP
or OPTIONS



Within each Service Menu are Categories and data information.



Sample Chassis Service Menu

2-1-2. USING THE REMOTE COMMANDER TO VIEW OR CHANGE SERVICE DATA

Use the buttons on the Remote Commander to access the Service Menu items and adjust the Data Values.

DISPLAY → Channel 5 → Volume + → POWER

4. To change the **Category**,
   press 2 to move to the Next Category or
   press 5 to go back to the Previous Category.
   Note: Pressing 2 or 5 only changes the Categories within the Service Menu displayed.
5. To change the **adjustment item**,
   press 1 to move to the Next Item or
   4 to go back to the Previous Item.
6. To change the **Data Value**,
   press 3 to increase the Data Value or
   6 to decrease the Data Value.
7. Press MUTING then press 0 to Write the changes.
8. To exit service mode, press HOME or turn the TV power off.

2-2. ADJUSTMENTS AFTER REPLACING THE BAL BOARD OR LCD PANEL

The following procedures must be completed after replacing the BAL Board or the LCD panel.

- ☑ Update the TV to the latest software version
- ☑ Select the Model
- ☑ Select the Destination
- ☑ Verify model and panel information are correct
- ☑ Reconnect all cables

2-2-1. UPDATING THE SOFTWARE

After replacing the BAL Board or the LCD Panel, you must update the software to the latest version.

Before you begin

- ☑ Disconnect all cables (RF, External input, Ethernet, etc.) from the TV

Instructions for updating the software are included with the software package. After completing the software update, proceed to "Selecting the Model".

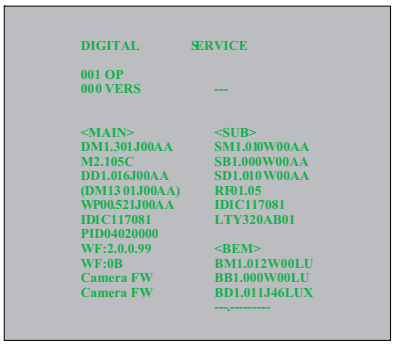
2-2-2. SELECTING THE MODEL

After replacing the BAL Board or LCD Panel, go into Service Mode to set the Model data value.

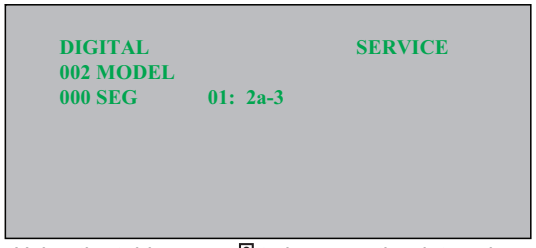
1. TV must be in standby mode. (Power off).
2. Access Service Mode.
   Press the following buttons on the Remote Commander within a second of each other:

DISPLAY → Channel 5 → Volume + → POWER

3. Display the **DIGITAL Service Menu**.
   NOTE: There are 3 Service Menus for this model, DIGITAL, CHASSIS, and SUB. If the DIGITAL Service Menu is not displayed, press **JUMP** or **OPTIONS** on the Remote Commander.

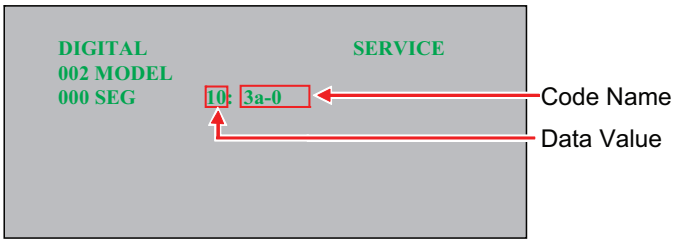


4. Press 2 to move to the **002 MODEL** (Next) category.



5. Using the table, press 3 to increase the data value or 6 to decrease the data value, to match the model of the TV.

Chassis	Model Name	Data Value	Code Name
AZ1-L	KDL-32EX700	10	3a-0
AZ1-L	KDL-40EX700	10	3a-0
AZ1-L	KDL-40EX703	10	3a-0
AZ1-L	KDL-40EX707	10	3a-0
AZ1-L	KDL-46EX700	10	3a-0
AZ1-L	KDL-46EX701	10	3a-0
AZ1-L	KDL-46EX703	10	3a-0
AZ1-L	KDL-46EX707	10	3a-0
AZ1-L	KDL-52EX700	10	3a-0
AZ1-L	KDL-52EX701	10	3a-0
AZ1-L	KDL-52EX703	10	3a-0
AZ1-L	KDL-52EX707	10	3a-0
AZ1-L	KDL-60EX700	10	3a-0
AZ1-L	KDL-60EX701	10	3a-0
AZ1-L	KDL-60EX703	10	3a-0

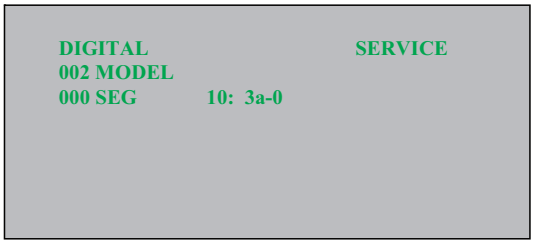


6. Proceed to “Selecting the Destination”.

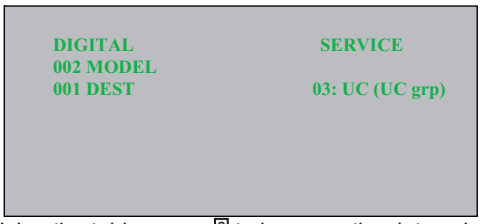
2-2-3. SETTING THE DESTINATION

After replacing the BAL Board or the LCD Panel, the destination location must be set.

CAUTION: Selecting the incorrect destination may requiring replacing the BAL Board.

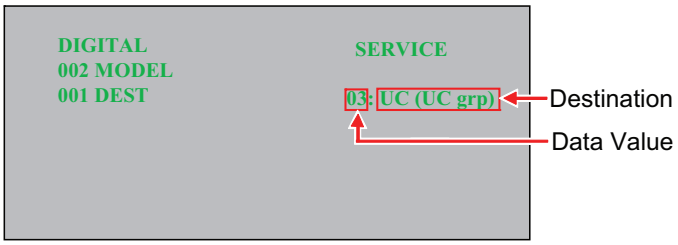


7. Press 1 to move to “**001 DEST**” sub Category.



8. Using the table, press 3 to increase the data value or 6 to decrease the data value, to select the destination of the TV.

GROUP	DESTINATION CODE	DATA VALUE	DESTINATION
UC grp	UC	3	US/CND
	LTN-D	16	MX/LATIN AMERICA



CAUTION: Verify the DESTINATION is set correctly before proceeding to the next step. If another destination Data Value is selected, it may possibly corrupt the software which would require a BAL Board replacement.

9. After verifying the destination data value displays, press 0 to save (Write) the changes.
10. Exit Service Mode by pressing HOME or turn the TV power off.
11. Proceed to "Verifying the Model and Panel Information".

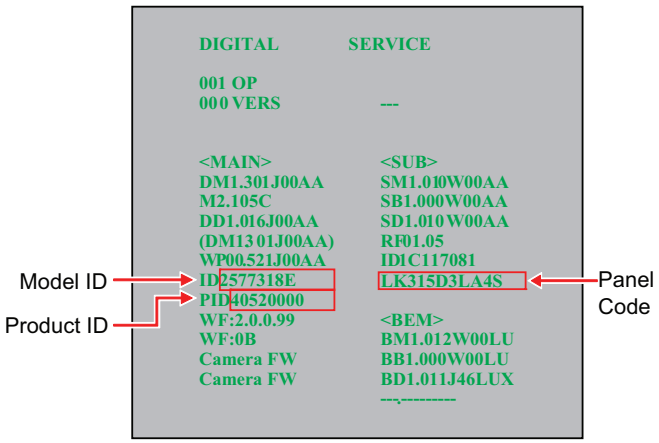
2-2-4. VERIFYING THE MODEL AND PANEL INFORMATION

After saving the changes to the service data, verify the information.

1. TV must be in standby mode. (Power off).
2. Access Service Mode.
   Press the following buttons on the Remote Commander within a second of each other:

DISPLAY → Channel 5 → Volume + → POWER

3. Display the **DIGITAL Service Menu**.
   NOTE: There are 3 Service Menus for this model, DIGITAL, CHASSIS, and SUB. If the DIGITAL Service Menu is not displayed, press JUMP or OPTIONS on the Remote Commander.



4. Using the table, verify the Model ID and the Product ID match the information in the Service Menu.

Model Name	Model ID	Product ID	Panel ID
KDL-32EX700	2577318E	40520000	LK315D3LA4S
KDL-32EX700	2577318E	40520000	LK320D3LEDE120
KDL-32EX700	2577318E	0C520000	LK315D3LA4S
KDL-32EX700	2577318E	0C520000	LK320D3LEDE120
KDL-40EX700	2577361B	30520000	LK400D3LA4S
KDL-40EX700	2577361B	30520000	LK400D3LEDE120
KDL-40EX700	2577319B	40520000	LK400D3LA4S
KDL-40EX700	2577319B	40520000	LK400D3LA4T
KDL-40EX700	2577319B	40520000	LK400D3LEDE120
KDL-40EX700	2577319B	0C520000	LK400D3LA4S
KDL-40EX700	2577319B	0C520000	LK400D3LA4T
KDL-40EX700	2577319B	0C520000	LK400D3LEDE120
KDL-40EX703	2577319B	0C520000	LK400D3LA4S
KDL-40EX703	2577319B	0C520000	LK400D3LA4T
KDL-40EX703	2577319B	0C520000	LK400D3LEDE120
KDL-46EX700	2577361C	30520000	LK460D3LA8S
KDL-46EX700	2577361C	30520000	LK460D3LA8T
KDL-46EX700	2577361C	30520000	LK460D3LEDE120
KDL-46EX700	25773626	30520000	LTY(Z)460HJ02
KDL-46EX700	2577319C	40520000	LK460D3LA8S
KDL-46EX700	2577319C	40520000	LK460D3LA8T
KDL-46EX700	2577319C	40520000	LK460D3LEDE120
KDL-46EX700	257731A6	40520000	LTY(Z)460HJ02
KDL-46EX700	2577319C	0C520000	LK460D3LA8S
KDL-46EX700	2577319C	0C520000	LK460D3LA8T
KDL-46EX700	2577319C	0C520000	LK460D3LEDE120
KDL-46EX700	257731A6	0C520000	LTY(Z)460HJ02
KDL-46EX701	2577319C	0C520000	LK460D3LA8S
KDL-46EX701	2577319C	0C520000	LK460D3LA8T
KDL-46EX701	2577319C	0C520000	LK460D3LEDE120
KDL-46EX701	257731A6	0C520000	LTY(Z)460HJ02
KDL-46EX703	2577319C	0C520000	LK460D3LA8S
KDL-46EX703	2577319C	0C520000	LK460D3LA8T
KDL-46EX703	2577319C	0C520000	LK460D3LEDE120
KDL-46EX703	257731A6	0C520000	LTY(Z)460HJ02
KDL-52EX700	2577361D	30520000	LK520D3LB1S
KDL-52EX700	2577361D	30520000	LK520D3LEDE120
KDL-52EX700	2577319D	40520000	LK520D3LB1S
KDL-52EX700	2577319D	40520000	LK520D3LEDE120
KDL-52EX700	2577319D	0C520000	LK520D3LB1S
KDL-52EX700	2577319D	0C520000	LK520D3LEDE120
KDL-52EX701	2577319D	0C520000	LK520D3LB1S
KDL-52EX701	2577319D	0C520000	LK520D3LEDE120
KDL-52EX703	2577319D	0C520000	LK520D3LB1S
KDL-52EX703	2577319D	0C520000	LK520D3LEDE120
KDL-60EX700	2577361A	30520000	LK600D3LA5S
KDL-60EX700	2577319A	40520000	LK600D3LA5S
KDL-60EX700	2577319A	0C520000	LK600D3LA5S
KDL-60EX701	2577319A	0C520000	LK600D3LA5S
KDL-60EX703	2577319A	0C520000	LK600D3LA5S

5. Exit Service Mode by pressing HOME or turn the TV power off.
6. Proceed to “Reconnecting All Cables”.

2-2-5. RECONNECTING ALL CABLES

After completing the changes to service mode, reconnect all the cables (RF, External input, Ethernet, etc.) to the TV then verify the TV set picture. If necessary, proceed to “White Balance Adjustments”.

2-3. WHITE BALANCE ADJUSTMENTS

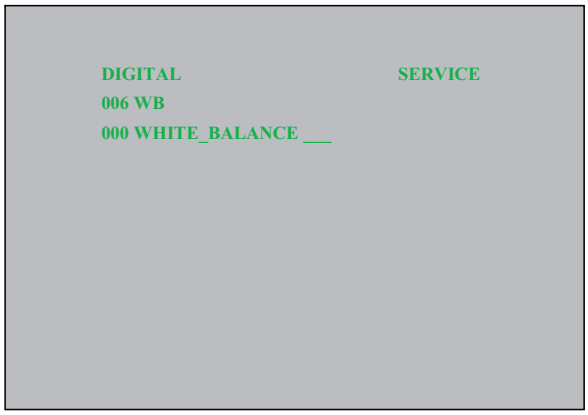
White Balance adjustment data is located on the Digital Service Menu.

1. TV must be in Standby Mode. (POWER off).
2. Press the following buttons on the Remote Commander within a second of each other:

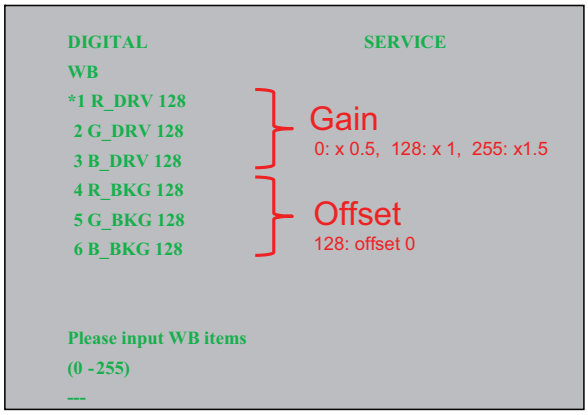
DISPLAY → Channel 5 → Volume + → POWER

NOTE: If the **Digital Service Menu** is not displayed, press JUMP or OPTIONS.

3 Press 2 to move to “006 WB” Category.



4. Press 0 to enter White Balance Adjustment mode.
5. To select the White Balance Adjustment setting that needs to be changed, do the following:
   a. To select R_DRV, press 1.
   b. To select G_DRV, press 2.
   c. To select B_DRV, press 3.
   d. To select R_BKG, press 4.
   e To select G_BKG, press 5.
   f. To select B_BKG, press 6.
6. After selecting the White Balance setting, press ENT to display the edit screen.
   The screen displays a “Please input WB items” message.



7. Using the numbers buttons on the remote, enter the Data Value for the White Balance setting (value must be between 1 and 255).
8. Press ENT to WRITE (save) the changes.
9. To exit White Balance Adjustment, press JUMP or OPTIONS

2-4. RESETTING THE TV TO FACTORY CONDITION

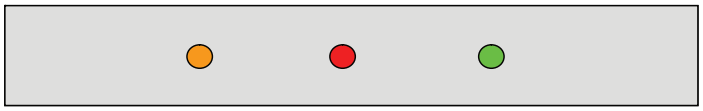
Use the following instructions to restore the User Adjustments and Channel Memory settings to the preset factory conditions.

1. While holding down the ⏏ on the Remote Commander, press the POWER button on the TV Switch Unit of the set.

   The set restarts and displays the Initial Setup screen. This may take several minutes.

2-4-1. RESETTING THE TV TO FACTORY CONDITION USING SERVICE MODE

1. TV must be in Standby Mode. (POWER off).
2. Press the following buttons on the Remote Commander within a second of each other:
   DISPLAY → Channel 5 → Volume + → POWER.
3. If necessary, press **JUMP** or **OPTIONS** to go to DIGITAL mode.
4. Press 8.
   "SERVICE" changes to green RST.
5. Press **MUTING**.
   RST executes the command and displays EXE.
6. Press 0 .
   EXE-RST displays green, then red indicating the TV is writing the data.
7. When the process is complete the green SERVICE text displays and the LED display as shown below:



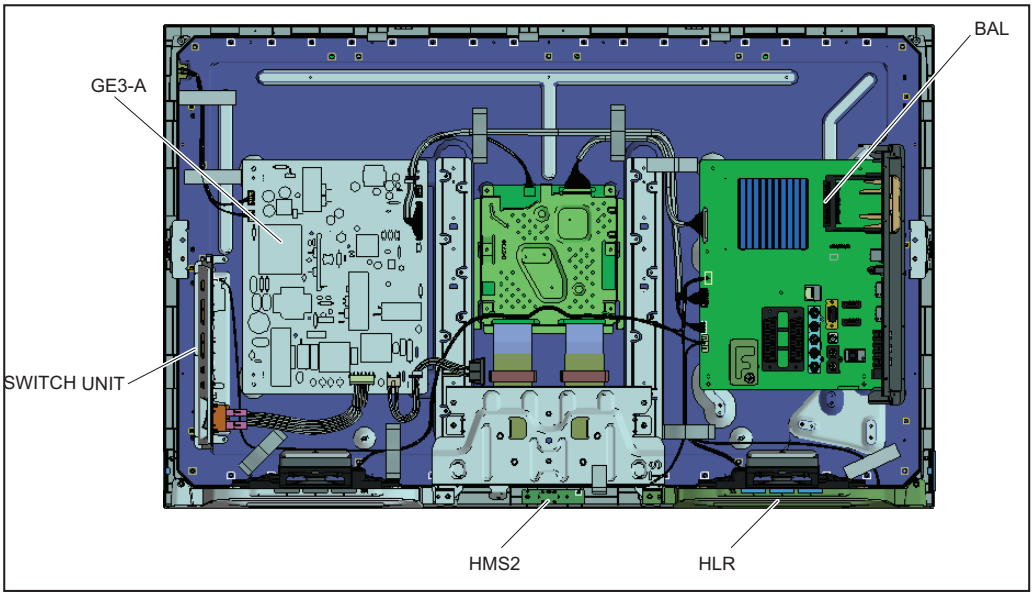
TIMER Standby POWER

8. Cycle AC Power (Unplug and Plug AC Cord from the AC Outlet).
9. The set restarts and displays the Initial Setup screen. This may take several minutes.

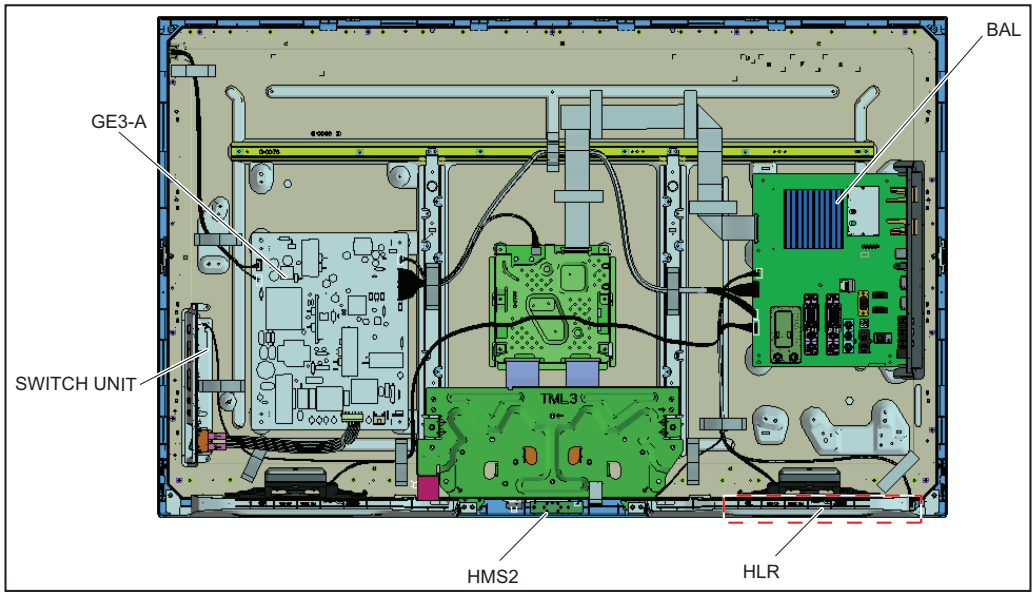
SEC 3. DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

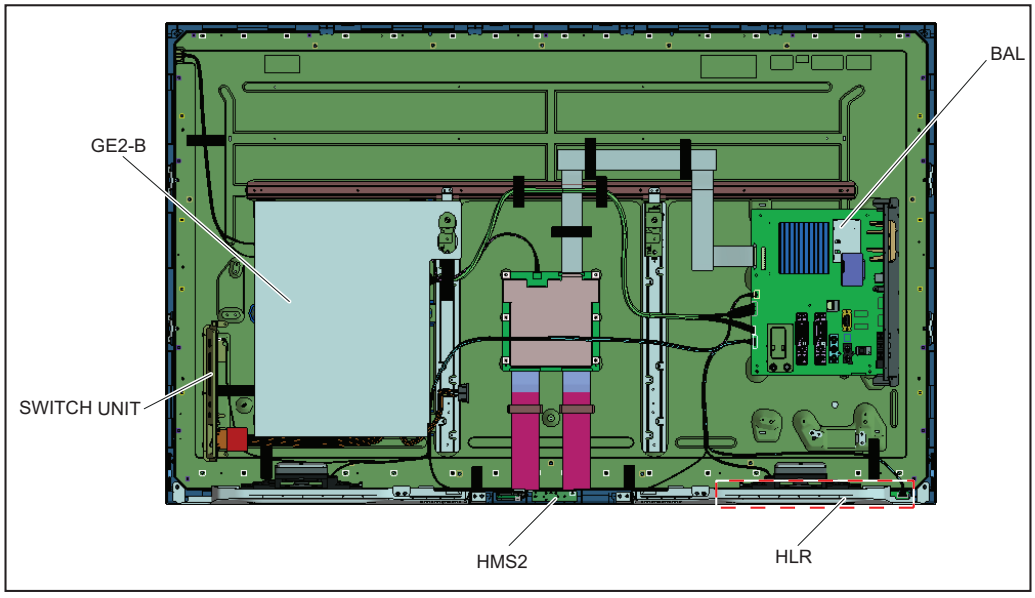
3-1-1. KDL-32EX700



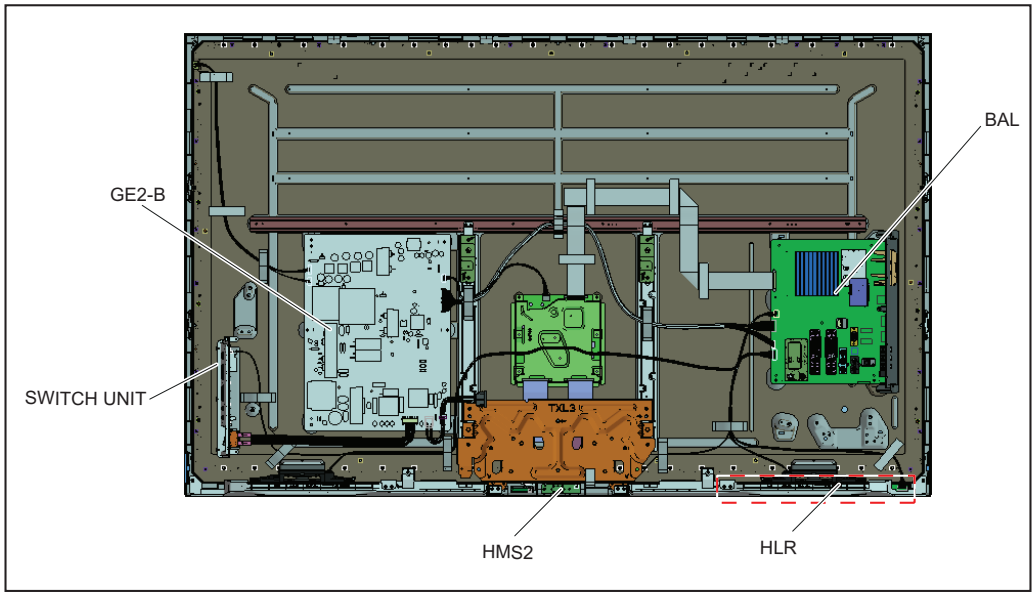
3-1-2. KDL-40EX700/40EX703



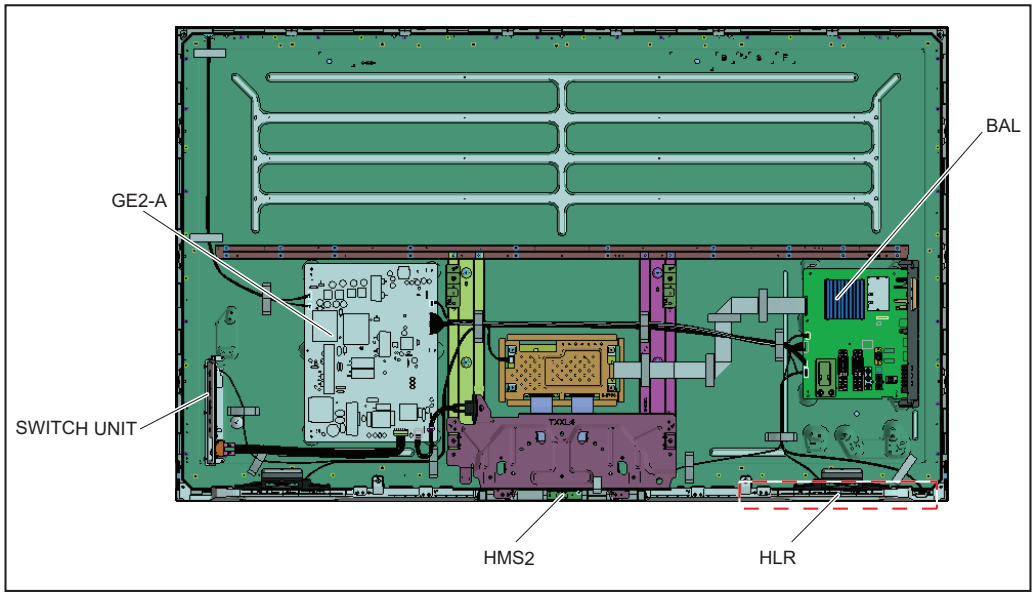
3-1-3. KDL-46EX700/46EX701/46EX703



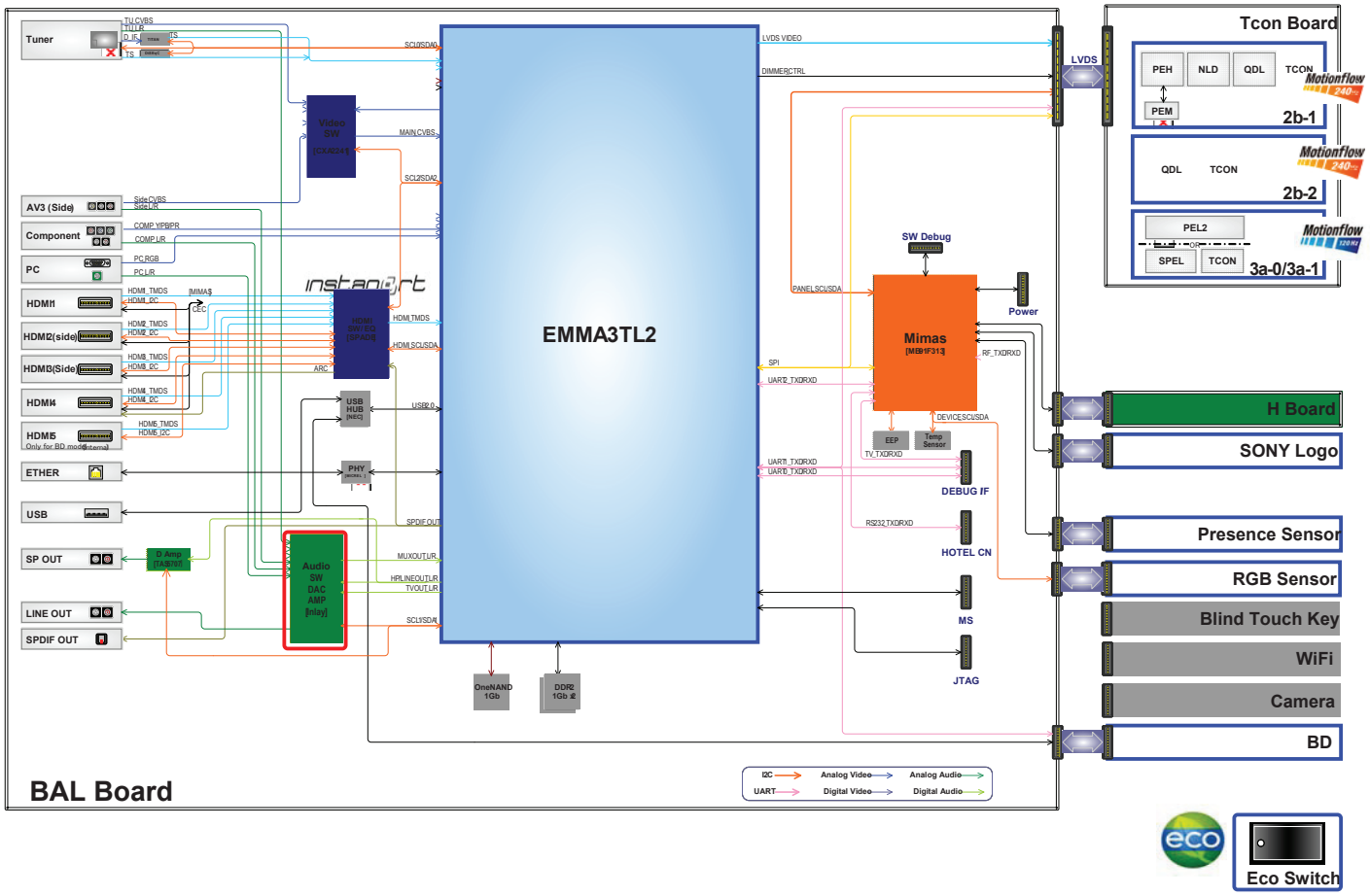
3-1-4. KDL-52EX700/52EX701/52EX703



3-1-5. KDL-60EX700/60EX701/60EX703



3-2. BLOCK DIAGRAM



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